

WHAT IS CLAIMED IS:

1. A thin film transistor comprising:

a first conductive region formed on a first plane that is spaced apart from a substrate by a first distance;

5 a second conductive region formed on a second plane that is spaced apart from the substrate by a second distance, the second conductive region including a body conductive region and two hand conductive regions elongated from both ends of the body conductive region to form an U-shape; and

a third conductive region formed on the second plane, the third conductive region including an elongated portion, the elongated portion disposed between the two hand conductive regions of the second conductive region.

2. The thin film transistor of claim 1, wherein the first conductive region corresponds to a gate electrode, the second conductive region corresponds to a source electrode, and the third conductive region is a drain electrode.

3. The thin film transistor of claim 1, wherein a ratio of a length of the elongated portion to a width of the elongated portion is equal to or less than about 5.

20 4. A thin film transistor comprising:

a first conductive region formed on a first plane that is spaced apart from a substrate by a first distance;

a second conductive region formed on a second plane that is spaced apart from the substrate by a second distance, the second conductive region including a second body conductive region and a plurality of second hand conductive regions, the second body conductive region extended in a first direction, and the second hand conductive regions elongated from the second
5 body conductive region in a second direction; and

a third conductive region formed on the second plane, the third conductive region including a third body conductive region and a plurality of third hand conductive regions, the third body conductive region extended in the first direction to face the second body conductive region, the third hand conductive regions elongated from the third body conductive region
10 toward the second body conductive region, and each of the third hand conductive regions disposed between the second hand conductive regions.

5. The thin film transistor of claim 4, wherein the first conductive region corresponds to a gate electrode, the second conductive region corresponds to a source electrode, and the third
15 conductive region corresponds to a drain electrode.

6. The thin film transistor of claim 4, wherein the first conductive region has a plurality of openings, each of the third hand conductive regions disposed over each of the openings respectively, so that the parasitic capacitance formed between the first conductive
20 region and the third conductive region is reduced.

7. The thin film transistor of claim 4, wherein each of the second hand conductive regions comprises a plurality of second finger conductive regions elongated from the second hand conductive regions toward the second hand conductive regions.

5 8. The thin film transistor of claim 7, wherein the second body conductive region, the second hand conductive regions and the second finger conductive regions overlaps with the first conductive region.

9. The thin film transistor of claim 4, wherein each of the third conductive region
10 lines comprises a plurality of third finger conductive regions elongated from the third hand conductive regions toward the third hand conductive regions.

10. The thin film transistor of claim 9, wherein a length of the third finger conductive region is substantially equal to a width of the third finger conductive region.

15 11. The thin film transistor of claim 9, wherein a ratio of a length of the third finger conductive region to a width of the third finger conductive region is equal to or less than about 5.

12. The thin film transistor of claim 9, wherein the third body conductive region and
20 the third hand conductive region are deviated from the first conductive region, so that only the third finger conductive region overlaps with the first conductive region to reduce a parasitic capacitance between the first conductive region and the third conductive region.

13. The thin film transistor of claim 4, wherein each of the second conductive region further comprises a plurality of second finger conductive regions elongated from the second hand conductive regions toward the second hand conductive regions, and each of the third conductive region further comprises a plurality of third finger conductive regions elongated from the third hand conductive regions toward the second hand conductive regions, such that each of the third finger conductive regions is disposed between the second finger conductive regions.

14. The thin film transistor of claim 4, wherein each of the second conductive region further comprises a plurality of second finger conductive regions elongated from the second hand conductive regions toward the second hand conductive regions, and each of the third conductive region further comprises a plurality of third finger conductive regions elongated from the third hand conductive regions toward the third hand conductive regions, such that each of the third finger conductive regions is disposed between the second finger conductive regions, a ratio of a length of the third finger conductive region to a width of the third finger conductive region is equal to or less than about 5.

15. A shift register including a plurality of cascade-connected stages, a first stage receiving a scan start signal, each of the stages sequentially generating an output signal, odd number of stages receiving a first clock signal and a first control signal for discharging the first clock signal charged in a present stage in response to an output signal of a next stage, even number of stages receiving a second clock signal having a 180° phase difference with respect to the first clock signal and a second control signal for discharging the second clock signal charged

in the present stage in response to the output signal of the next stage, each of the stages comprising:

a pull-up device for providing an output terminal with the first clock or the second clock, the pull-up device including i) a first conductive region formed on a first plane that is spaced
5 apart from a substrate by a first distance, ii) a second conductive region formed on a second plane that is spaced apart from the substrate by a second distance, the second conductive region including a second body conductive region and a plurality of second hand conductive regions, the second body conductive region extended in a first direction, and the second hand conductive regions elongated from the second body conductive region in a second direction, iii) a third
10 conductive region formed on the second plane, the third conductive region including a third body conductive region and a plurality of third hand conductive regions, the third body conductive region extended in the first direction to face the second body conductive region, the third hand conductive regions elongated from the third body conductive region toward the second body conductive region, and each of the third hand conductive regions disposed between the second
15 hand conductive regions;

a pull-down device for providing the output terminal with a first power voltage;

a pull-up driving part electrically coupled with a first input node of the pull-up device, the pull-up driving device turning on the pull-up device in response to a first leading edge of the output signal of a previous stage, the pull-up driving device turning off the pull-up device in
20 response to a second leading edge of the first control signal or the second control signal; and

a pull-down driving part electrically coupled with a second input node of the pull-down device, the pull-down driving part turning off the pull-down device in response to a third leading edge of an input signal that is inputted to an input terminal of each of the stages, the pull-down

driving part turning on the pull-down device in response to the second leading edge of the first control signal or the second control signal.

16. The shift resistor of claim 15, wherein the first conductive region corresponds to a gate electrode, the second conductive region corresponds to a source electrode, and the third conductive region is a drain electrode.

17. The shift resistor of claim 15, wherein each of the second hand conductive regions comprises a plurality of second finger conductive regions elongated from the second hand conductive regions toward the second hand conductive regions.

18. The shift resistor of claim 15, wherein each of the third hand conductive region further comprises a plurality of third finger conductive regions elongated from the third hand conductive regions toward the third hand conductive regions.

19. The shift resistor of claim 18, wherein each of the second conductive region further comprises a plurality of second finger conductive regions elongated from the second hand conductive regions toward the second hand conductive regions, and each of the third conductive region further comprises a plurality of third finger conductive regions elongated from the third hand conductive regions toward the second hand conductive regions, such that each of the third finger conductive regions is disposed between the second finger conductive regions.

20. The shift resistor of claim 18, wherein each of the second conductive region further comprises a plurality of second finger conductive regions elongated from the second hand conductive regions toward the second hand conductive regions, and each of the third conductive region further comprises a plurality of third finger conductive regions elongated from the third hand conductive regions toward the third hand conductive regions, such that each of the third finger conductive regions is disposed between the second finger conductive regions, a ratio of a length of the third finger conductive region to a width of the third finger conductive region is equal to or less than about 5.

21. The shift resistor of claim 15, wherein each of the second conductive region further comprises a plurality of second finger conductive regions elongated from the second hand conductive regions toward the second hand conductive regions, and each of the third conductive region further comprises a plurality of third finger conductive regions elongated from the third hand conductive regions toward the third hand conductive regions, such that each of the third finger conductive regions is disposed between the second finger conductive regions.

22. The shift resistor of claim 15, wherein each of the second conductive region further comprises a plurality of second finger conductive regions elongated from the second hand conductive regions toward the second hand conductive regions, and each of the third conductive region further comprises a plurality of third finger conductive regions elongated from the third hand conductive regions toward the third hand conductive regions, such that each of the third finger conductive regions is disposed between the second finger conductive regions, a ratio of a

length of the third finger conductive region to a width of the third finger conductive region is equal to or less than about 5.

23. A shift register including a plurality of cascade-connected stages, a first stage
5 receiving a scan start signal, each of the stages sequentially generating an output signal, odd
number of stages receiving a first clock signal and a first control signal for discharging the first
clock signal charged in a present stage in response to an output signal of a next stage, even
number of stages receiving a second clock signal having a 180° phase difference with respect to
the first clock signal and a second control signal for discharging the second clock signal charged
10 in the present stage in response to the output signal of the next stage, each of the stages
comprising:

a pull-up transistor providing an output terminal with the first clock signal or the second
clock signal, the pull-up transistor including i) a first conductive region formed on a first plane
that is spaced apart from a substrate by a first distance, ii) a second conductive region formed on
15 a second plane spaced apart from the substrate by a second distance, the second conductive
region including a second body conductive region and a plurality of second hand conductive
regions, the second body conductive region extended in a first direction, and the second hand
conductive regions elongated from the second body conductive region in a second direction, iii)
a third conductive region formed on the second plane, the third conductive region including a
20 third body conductive region and a plurality of third hand conductive regions, the third body
conductive region extended in the first direction to face the second body conductive region, the
third hand conductive regions elongated from the third body conductive region toward the

second body conductive region, and each of the third hand conductive regions disposed between the second hand conductive regions;

a pull-down transistor for providing the output terminal with a first power voltage;

a pull-up driving part electrically coupled with a first input node of the pull-up transistor,

5 the pull-up driving part turning on the pull-up transistor in response to a first leading edge of the output signal of a previous stage, the pull-up driving part turning off the pull-up transistor in response to a second leading edge of the first control signal or the second control signal; and

a pull-down driving part electrically coupled with a second input node of the pull-down transistor, the pull-down driving part turning off the pull-down transistor in response to a third
10 leading edge of an input signal that is inputted to an input terminal of each of the stages, the pull-down driving part turning on the pull-down transistor in response to the second leading edge of the first control signal or the second control signal.

24. The shift resistor of claim 23, wherein the pull-down transistor comprises i) a
15 fourth electrode formed on a first plane that is spaced apart from a substrate by a fourth distance, ii) a fifth electrode formed on a fifth plane that is spaced apart from the substrate by a fifth distance, the fifth electrode including a fifth body conductive region and a plurality of fifth hand conductive regions, the fifth body conductive region extended in a third direction, and the fifth hand conductive regions elongated from the fifth body conductive region in a fourth direction,
20 iii) a sixth electrode formed on the fifth plane, the sixth electrode including a sixth body conductive region and a plurality of sixth hand conductive regions, the sixth body conductive region extended in the fourth direction to face the fifth body conductive region, the sixth hand conductive regions elongated from the sixth body conductive region toward the fifth body

conductive region, and each of the sixth hand conductive regions disposed between the fifth hand conductive regions.

25. The shift resistor of claim 23, wherein the pull-up driving part comprises a hold
5 transistor for maintaining a voltage level of the first conductive region of the pull-up transistor at substantially an gate turn-off voltage level, the hold transistor including, i) a seventh electrode formed on a seventh plane that is spaced apart from a substrate by a seventh distance, ii) an eighth electrode formed on a eighth plane that is spaced apart from the substrate by an eight distance, the eighth electrode including an eighth body conductive region and a plurality of
10 eighth hand conductive regions, the eighth body conductive region extended in a fifth direction, and the eighth hand conductive regions elongated from the eighth body conductive region in a fifth direction, iii) a ninth electrode formed on the eighth plane, the ninth electrode including a ninth body conductive region and a plurality of ninth hand conductive regions, the ninth body conductive region extended in the fifth direction to face the eighth body conductive region, the
15 ninth hand conductive regions elongated from the ninth body conductive region toward the eighth body conductive region, and each of the ninth hand conductive regions disposed between the eighth hand conductive regions.

26. A shift resistor for driving a liquid crystal display device, the shift resistor turning
20 on or turning off a plurality of gate lines electrically coupled to a plurality of thin film transistors arranged in a matrix shape on a liquid crystal display panel, the shift resistor comprising:

a first conductive region formed on a first plane that is spaced apart from a substrate by a first distance;

a second conductive region formed on a second plane that is spaced apart from the substrate by a second distance, the second conductive region including a body conductive region and two hand conductive regions elongated from both ends of the body conductive region to form an U-shape; and

- 5 a third conductive region formed on the second plane, the third conductive region including a elongated portion, the elongated portion disposed between the two hand conductive regions of the second conductive region.